

Resource Protection Measures:

1. Clean Equipment

- 1.1. Equipment and clothing shall be cleaned before entering the Project area. Equipment will be considered clean when visual inspection of tires, tracks, and underbody do not reveal soil, seeds, plant material, or other such debris. Disassembly of equipment components or specialized inspection equipment is not required.
- 1.2. Equipment must be cleaned and inspected by WBI/INF PM after any unit with an invasive population (see Contract maps) prior to moving to another project unit.

2. Borax Application

- 2.1. Stumps will be treated with a Cell-u-Treat or Borax fungicide to prevent the spread of root disease. It should be applied in a uniform coating and at a rate of one pound per 50 square feet of stump surface.
 - All stumps > 3" diameter within 300 feet of roads, infrastructure, and campgrounds.
 - All stumps > 14" diameter throughout the entire Project area.
- 2.2. Application shall follow all State and Federal rules and regulations relevant to this fungicide application.
- 2.3. Application will occur within 4 hours of stump creation. It will not be applied on rainy days or within 200 feet of running or standing water. Borax shall be applied to cut stumps after rain has cleared.
- 2.4. A dye will be added to the stumps during application.

3. Nesting Raptor Surveys & Limiting Operating Period (LOP)

- 3.1. Between January 1 – August 31, nesting raptor surveys will occur. No known active nests are known within the Project area; these surveys will potentially identify new, active, raptor nests.
- 3.2. If an active nest is identified during these surveys, a 330 – 660-foot buffer around the nest may be applied and no work would be allowed within this buffer until after August 31 or after Forest/Project biologist has cleared the nest. This area will be flagged in the field; **flagging solid orange**. Once LOP is lifted, Contractors will be required to complete work within the buffer.
- 3.3. Wildlife trees will not be cut by the Contractor unless approved by PM. These trees will be marked by two neon orange or brown signs that say "Wildlife Tree" or yellow flagging.

4. Mountain and Jeffrey Pine Beetle (East Shady only)

- 4.1. **Before June 15 & after Sept 15:** To prevent the spread of pine beetle to residual trees, all trees with active beetle infestation will be treated using one of the two methods:
 - processed to remove 75 % of the bark from the log (preferred)
 - hauled off-site within one week of the log being cut.

5. Invasive Plants

Goal within invasive plant polygons is to mitigate spread outside of these polygons.

- 5.1. Invasive RPM 1 – No staging, no temp roads, no skidding, minimize yarding/dragging within the polygon. On Contract map.

- 5.2. Invasive RPM 2 – WBI/INF will coordinate for hand pulling of population prior to unit commencement. Not on Contract map.
- 5.3. Invasive RPM 3 – cover with chips 4” – 6” in depth for mechanical operations. Chip depth must be maintained throughout duration of project.
- 5.4. Full Avoidance – Contractor will fully avoid this area. No entry allowed.

6. Control Areas

- 6.1. Control Areas will be designated on contract maps and/or flagged on the ground.
- 6.2. Control Area types:
 - a. Hand Thinning Only, No Piling:
 - 1) Hand thinning only, no machinery permitted.
 - 2) Directionally fell trees away from control area.
 - 3) No piling within control area unless approved in writing by Whitebark/INF Project Manager (PM). **Flagged with orange and white striped flagging.**
 - b. No Skidding, Full Suspension of Material, Rubber Tired Equipment Only, No Piling:
 - 1) Minimize new ground disturbance.
 - 2) Directionally fell trees away from the control area. Felled trees may be removed by hand-carrying material or by using rubber-tired equipment which can fully suspend trees.
 - 3) Use of other non-ground disturbing methods must be approved by PM in writing. No tracked equipment, endlining, or skidding allowed. No piling unless approved by PM in writing. **Flagged with orange and black striped flagging.**
 - c. Directionally Fell Away Standing Structures:
 - 1) Directionally fell away from standing structures. **Not flagged, see contract maps.**
 - d. Sections 6.2e, 6.2f, 6.1g:
 - 1) Applies to existing road prism only.
 - 2) Only applies to unpaved/native roads.
 - e. Roads: Road Maintenance & Tracked Equipment Permitted
 - 1) All road maintenance activities permitted within existing roadway.
 - 2) Tracked equipment permitted within existing roadway.
 - 3) **Flagged with TBD.**
 - f. Roads: No Tracked Equipment, Lift Blade
 - 1) Dust abatement permitted with rubber-tired equipment.
 - 2) No other road maintenance activities are permitted including blading.
 - 3) No tracked equipment permitted.
 - 4) **Flagged with TBD.**
 - g. Roads: Light blading with Arch monitor required. Minimize tracked equipment.
 - 1) Road maintenance light blading permitted with arch monitor present within existing roadway.
 - 2) Dust abatement permitted with rubber-tired equipment with no arch monitor present.
 - 3) No other road maintenance activities permitted.

4) Flagged with TBD.**7. Cultural Resource Discovery Procedure**

- 7.1. If a previously undetected Cultural Resource (meeting the definitions in Exhibit Forest Definitions) is discovered in a treatment area during project implementation, the following measures shall be taken:
- Stop work and contract the WBI/INF PM immediately.
 - Protect the area through avoidance, providing a reasonable buffer around the discovery site until a formal assessment by an archaeologist is made. Work activities in surrounding areas outside the buffered protection area may continue.
 - Work will only proceed within the area once approved by the Heritage Program Manager.

8. Timber Waiver and Storm Events

- 8.1. The 2024 Lahontan Timber Waiver applies to all units. [Regulation of Timber Harvest and Vegetation Management Projects in the Lahontan Region | Lahontan Regional Water Quality Control Board](#)
- 8.2. Prior to a large storm event (50-percent chance of 0.5 inches of water equivalent or greater within the next 24-hours as predicted by NOAA), the PM will review Project BMPs in place during implementation and notify the Forest/Project hydrologist if additional BMPs are necessary.

9. Drafting (see Contract Map)

- 9.1. There is one potential drafting site in the maps, will be approved by RPF date. Any other proposed drafting sites on INF must be approved by PM in writing.
- 9.2. The following BMPs apply:
- Use screening devices for drafting water.
 - Use a low velocity pump. The water drafting rate should not exceed 350 gallons per minute for streamflow greater than or equal to 4.0 cubic feet per second (cfs).
 - Below 4.0 cfs, drafting rates should not exceed 20% of surface flows.
 - Water drafting should cease when bypass surface flows drop below 1.5 cfs.
 - If using a stand-alone pump, ensure that it is in a spill proof container, such as a plastic or other impermeable container with at least a 2 inch lip to contain any fluid that may spill out of the pump.
 - While in use, place the pump as far away from the stream channel as possible.
 - When not in use, pump must be stored 300 feet from the stream.

Mechanical Operations & Rehab**10. Operations Plan**

Contractor will be required to submit an Operations Plan 45 days prior to implementation for approval. Changes to locations of main skid trails, landing areas, and temporary road locations will have to be approved by the PM. Substantial changes will require approval from the Lahontan Water Board and may take 30 days for approval. This plan will include:

- Schedule of work (unit order, technical method, and biomass disposal)

- Equipment list
- Equipment staging areas
- Landings
- Main skid trails
- Temporary roads
- Designated haul route

11. Flagging prior to operations

Contractor will be required to flag proposed main skid trails, temporary roads, stream crossings, and landing areas prior to project commencement. See flagging guidance attached.

12. Forest Order Closures

- 12.1. Forest order closures will be required for each unit prior to work commencement. INF/WBI will work with Contractor to determine order of Forest Order Closures based on the Operations Plan submitted by the Contractor.
- 12.2. Contractor alterations to unit timing from Operations plan can result in delay in securing Forest Order Closures.

13. Operational Units Open

Contractor may not have more than two units open at a time unless approved in writing by the PM. Bridges Units – Contractor may not have more than five units open at a time unless approved in writing by the PM.

14. Ground Based Operations

- 14.1. Ground based equipment will be restricted to slopes averaging less than 35% over a 100-foot slope distance.
- 14.2. Hand falling and/or endlining up to 100 – 200 feet may be required in areas where mechanical equipment is restricted; see spec table.
- 14.3. Ground-based equipment will be limited to when the soil is dry to 6 inches depth or when conditions are identified as suitable by the PM.

15. Skidding/Yarding

- 15.1. No skidding on unpaved will occur unless otherwise approved by the in the PM in writing. No skidding on paved roads will be permitted.
- 15.2. Low-ground pressure equipment requirements and mechanical exclusion zones are identified on the contract map and described above.

16. Skid & Forwarder Trails

Main skid trails or forwarder trails are trails used 10 or more times and shall be spaced at a minimum of 132 feet apart and join other skid trails prior to a landing so that there is one main entrance to the landing.

- 16.1. Rehab:
 - To prevent further use, all skid trails/forward where they intersect unpaved roads, paved roads, and trails will be disguised by raking and spreading of slash and duff.

Entrances will be blocked with natural barriers such as large logs and rocks after treatment completion.

- Areas with equipment tracks and gouging from skidding will be back bladed.
- When slopes exceed 15%, all main skid/forward trails shall backbladed and have slash and woody debris placed to 75% coverage.
- When slopes exceed 30% slope, all main skid/forward trails shall be backbladed with waterbreaks/waterbars installed every 150 feet and have slash and woody debris placed to 75% coverage.

17. Landings

Where possible landings will be constructed in previously disturbed areas, adjacent to existing roads, and on slopes less than 5%. Unless approved by the PM, landings should not be constructed outside of unit boundaries and should not be greater than 1.5 acres in size.

17.1. Rehab Requirements:

- To prevent further use, all landings adjacent to permanent roads will be disguised by raking and spreading slash and duff. Entrances will be blocked with natural barriers such as large logs and rocks after treatment completion.
- Areas with equipment tracks will be backbladed.
- Wood chips and/or masticated, lopped, or scattered material will be applied to provide at least 75% coverage.

18. Temporary Roads

Any proposed temporary roads shall be constructed on existing benches at the lowest gradient possible. When they cross streams, they should cross at the highest angle possible and should not be constructed in swales or parallel to streams.

18.1. Rehab Requirements:

- To prevent further use, all temporary roads intersecting permanent roads will be disguised by raking and spreading slash and duff. Entrances will be blocked with natural barriers such as large logs and rocks after treatment completion.
- Wood chips and/or masticated, lopped, or scattered material will be applied to provide at least 75% coverage

Infrastructure

19. Infrastructure

See **Table 1** below for a list of infrastructure and restrictions within the Project area.

19.1. The Contractor will be financially responsible for any damages to infrastructure.

Contractor will pay for time and materials for any damage.

19.2. Activity generated slash will be cleared from paved roads, unpaved roads, trails, Multi-Use Path (MUPs), campsites, parking areas, and Shady Rest Park upon completion of a unit and returned to near original condition as practical.

20. Traffic Control

Contractor is responsible for traffic control when falling trees within 1.5 times the strike distance of any open trail or road. Traffic control will adhere to INF standards outlined in Guidelines for Operations. Traffic stops shall not last more than 30 minutes.

Table 1: Project Infrastructure, Operational Restrictions, and Notes

Infrastructure with Operational Restrictions	Operational Restrictions (Additional piling restrictions in Technical Specifications)	Notes	Units
Ormat - well pads	Must always keep access available for vehicle entry by Ormat	Adjacent areas can be used as landing/decking locations	East Shady
Ormat - pipeline	1. Directionally fell away from pipeline. 2. For loads exceeding 60,000 pounds must place steel plates where pipeline and electrical conduit goes under roads. 3. Protect pipeline with barricades where it comes out of the ground at road crossings.	Underground pipeline depth: steel casing covers the top of the pipeline and is 5- 8 feet underground. Underground electrical conduit is 4 feet underground	East Shady
SCE utility lines	Only blue marked trees within the SCE Buffer will be cut by the Contractor. Any additional trees must be approved by the WBI/INF PM.	Trees within strike distance of SCE utility lines may be marked with yellow & blue.	Uptown Bridges
Paved roads - all	No tracked equipment, no skidding	Rehab: <ul style="list-style-type: none"> Remove activity generated material See SKID TRAILS section above. 	All units
Paved roads – Highway 203	No tracked equipment; must comply with Caltrans requirements.		Uptown EQ Fault RV Park
Unpaved roads	No skidding along or across unpaved roads unless approved by PM.	Rehab: <ul style="list-style-type: none"> Remove activity generated material See SKID TRAILS section above. 	All units
Trails	Minimize crossings, rehab trail once work is completed	Rehab: <ul style="list-style-type: none"> Remove activity generated material See SKID TRAILS section above. 	Uptown Bridges EQ Fault Gallery
Multi-Use Pathways (MUPs)	<ul style="list-style-type: none"> No equipment on MUPs unless approved in writing by PM. No felling trees, yarding, or skidding trees on MUPs. 	Rehab: <ul style="list-style-type: none"> Remove activity generated material 	RV Park
CDT Fiber Optic - cable/lines	No operational restrictions	Markers indicate field location; cable is buried 3-4 feet underground. Can call 811 DIG prior to work for further marking.	East Shady
CDT Fiber Optic - vaults	No equipment within 10 feet.	Outside Project areas, only one. Indicated by two white/orange markers above ground and an above ground iron lid.	East Shady
USGS Tablets	No mechanical equipment within 5 feet.	<ul style="list-style-type: none"> Standard 3.5" USGS brass tablets set in bedrock or large boulders. Witness post within 6-8 feet. Exact location will be flagged prior to operations. 	East Shady RV Park
USGS Monuments	No mechanical equipment within 5 feet.	<ul style="list-style-type: none"> Rod marks in 6" PVC monuments in the ground. Witness post within 6-8 feet. Exact location will be flagged prior to operations. 	East Shady RV Park

USGS Survey Trees	No cutting of any USGS survey trees	<ul style="list-style-type: none"> Marked with USGS yellow square signs Will be flagged prior to operations 	RV Park Bridges EQ Fault
USGS Geodetic Site	No mechanical equipment or piling within 20 feet.	<ul style="list-style-type: none"> Will be flagged prior to operations. 	EQ Fault
Trees with other metal recreation signs	No cutting of trees with recreation signs without approval from PM	<ul style="list-style-type: none"> Including knolls loop (brown/yellow mtn. bike; not on contract map), light blue diamonds (not on contract map), xc ski trail (dark blue diamonds) 	All units
Over Snow Trails	No piling.		Scenic Loop - S
MMSA Lift Lines and Lift Terminals	Directionally fall away		Bridges
MMSA Electric Lines		MMSA will stake and flag prior to Contractor operations	Bridges
MMSA Erosion Ditches (unmapped) & Sediment Ponds	Activity generated material must be cleaned out. All pre-existing contours must be reestablished at project completion.		Bridges
MMSA Snowmaking Cans	No equipment within 5 feet. No activity generated material within 5 feet.		Bridges
MMSA Ski Back Trails	No piling; no masticated material		Bridges Uptown
MMSA Cutbanks	No mechanical operations without PM approval.		Bridges

Dispersed Camping

21. USFS Authorization for Dispersed Camping

Contractor may be permitted to dispersed camp on USFS land in accordance with all dispersed camping regulations. Camping on USFS land is not a right; permission may be revoked for failure to comply with the permit terms.

- Contractors will be required to fill out a dispersed camping permit with their Operations Plan and INF will approve the location.
- For crews greater than 6 people, INF will work with contractor to locate an appropriate camping location
- Contractor will be required to provide porta potties and/or bear boxes for crews greater than 6 when dispersed camping.

Biomass Disposal (DRAFT – subject to change)

1.1 General Piling

- All piles shall be neat, compact/tight, and constructed by laying limbs, stems, cut boles, and all other slash in the pile so it is conical in shape.
- All piles should be free of dirt.
- Piles must include a substantial amount (20% where possible) of finer fuels when available to aid in ignition and consumption. These added fuels shall be placed at the bottom of the pile and be progressively built up, beginning at the 1-hour size-class (fines), progressively increasing in size-class until you reach the maximum size of the material being piled. If fine fuels are not present to sufficiently meet the intent of acting as ‘kindling’, CONTRACTOR must notify the Whitebark/INF Project Manager (PM).

1.1.1 Hand Piles (only approvable for Control Areas):

- The maximum pile size shall be 20 feet in diameter by 15 feet in height, and the minimum pile size shall be 8 feet in diameter by 8 feet in height unless otherwise approved by the PM.
- Slash shall be bucked to lengths no longer than 4 feet.
All constructed piles shall receive one 4 foot wide by 4-foot-long sheet of waxed kraft paper in the top third of the pile, waxed side up. CONTRACTOR shall pile additional material (top third) on top of the kraft paper to prevent paper from moving off the pile.

1.1.2 Machine/Landing Piles

- The maximum pile size shall be 40 feet in diameter by 30 feet in height, and the minimum pile size shall be 12 feet in diameter by 12 feet in height unless otherwise approved by the PM.
- Slash shall be bucked to lengths no longer than 10 – 15 feet based on pile size.
- Piles shall be constructed by alternating the butt ends of the logs and tops to help provide fine material on either end of the pile, achieve pile compaction, and help aid in ignition. Piles shall be compact with few voids to keep snow and rain from penetrating.
- Piles greater than 15 feet in diameter shall be “lined” with a 4-foot horizontal distance surrounding the pile cleared to bare mineral soil and free of combustible material unless otherwise approved by the PM.

1.1.3 Windrows: Windrows are piles that are elongated to fit tight piling locations and are not conical in shape. All other parameters under General Piling apply.

- Hand units - Minimum height will be 8 feet
- Machine units – Minimum height will be 12 feet
- The maximum pile size shall be 50 feet in length by 20 feet in height by 20 feet wide unless otherwise approved by the PM.
- All material placed in piles shall be bucked to 10-foot lengths to facilitate tight piles.

1.1.4 Chipping/Mastication (Bridges Only)

- Max chip/mastication piece size 18”
- Avg chip/mastication depth 2”, max chip/mastication depth 4”

- No chip/mastication within MMSA Erosion ditches, MMSA sediment ponds, MMSA ski back trails, within 5 feet of MMSA Snowmaking cans.

1.2 Piling Locations

See **Table 3** below for where piling restrictions, listed in order of prioritization:

Table 3

Infrastructure/Item (in order of prioritization)	Pile size & pile distance from item		
	Piles < 12 feet in height	Piles 12 - 20 feet in height	Piles > 20 feet in height
Control Areas	No piling within control areas unless designated on the contract map		
Waterbody/watercourse	No piling within 25 feet of any waterbody/watercourse		
Powerlines, power poles, and buildings (of any size)	50 feet	100 feet	200 feet
Ormat Pipeline (East Shady only)	50 feet	100 feet	100 feet
CDT Fiber Optic Line & Vault (East Shady only)	10 feet	20 feet	
USGS Geodetic Site	10 feet	20 feet	
USGS Tablets/Monuments (East Shady only)	No piling within 5 feet		
Bole of leave trees	15 feet	20 feet	50 feet
Dripline of leave trees	Not within dripline		
Downed logs > 12" diameter on large end (regardless of decay class)	5 feet		
Other Piles	20 feet		
Rocks, stumps, swales, drainage ditches	Not on/within		
Paved Roads	25 feet		
Unpaved roads	10 feet where allowable		
XC Ski Trails/Over snow trails/Ski Back Trails	Not within 10 feet of centerline		
Trails	10 feet where allowable		

1.3 Alternative biomass disposal methods

- Contractor may submit alternative biomass disposal methods including but limited to: purchase subject to agreement, air curtain burner/pyrolizer.
- Chipping and mastication will not be allowed for this project.